

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Laura S.L. GAETA et al.

Application No. 10/649,138

Filed: August 26, 2003

For: Novel Amylin Agonist Peptides and

Uses Therefor (as amended)

Group Art Unit: 1646

Examiner: To Be Assigned

Atty. Docket: 248/182 CON / 18528.641

Confirmation No.: 8797

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

The attention of the Examiner is invited to the references listed on the attached Form PTO-1449. These references were previously considered in earlier filed U.S. Patent Application Serial No. 09/454,533, filed December 6, 1999, now US Patent 6,610,824, which is a continuation of Application No. 08/892,549, filed July 14, 1997, now US Patent No. 5,998,367, which is a divisional of Application No. 08/447,849, filed May 23, 1995, now US Patent No. 5,686,411, which is a continuation of Application No. 07/794,266, filed November 19, 1991, now abandoned, which is a continuation-in-part of Application No. 07/667,040, filed March 8, 1991, upon which the instant application relies on for an earlier effective filing date under 35 U.S.C. 120. Applicants further submit that the references filed in the Information Disclosure Statement in the earlier applications complied with 37 C.F.R. 1.98(a)-(c). Accordingly, Applicants submit that under 37 C.F.R. 1.98(d)(1)-(2), copies of the listed references need not be provided. However, the Examiner is requested to notify the Applicants should he/she require a copy of any or all of the listed references.

U.S. Application No. 10/649,138 Laura S.L. GAETA et al. Page 2

It is respectfully requested that the information above be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

Because this Information Disclosure Statement is being submitted prior to issuance of the first action on the merits of the above-captioned application, no certification or fee is required.

Respectfully submitted,

David R. Marsh (Reg. No. 41,408) Milan M. Vinnola (Reg. No. 45,979)

Date: April 26, 2004

ARNOLD & PORTER LLP 555 Twelfth Street, N.W. Washington, D.C. 20004-1206 (202) 942-5000 telephone (202) 942-5999 facsimile

FORM PTO-1449
INFORMATION DISCLOSURE STATE APPLICATION OF THE PROPERTY OF THE

ATTY. DOCKET NO. APPLICATION NO.

18528.641 10/649,138

APPLICANTS

DATE CONSIDERED

Laura S.L. GAETA et al.

FILING DATE GROUP
August 26, 2003 1646

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AAl	4,743,677	5/1988	NODA et al.	CLASS	CLASS	I ILING DATE
	ABI	4,992,530	2/1991	MORITA et al.			
	AC1	5,112,945	5/1992	WESTERMARK et al.			
	ADI	5,116,948	5/1992	WESTERMARK et al.			
	AEI	5,124,314	6/1992	COOPER			
	AF1	5,175,145	12/1992	COOPER			
	AG1	5,234,906	8/1993	YOUNG et al.	-		
	AHl	5,266,561	11/1993	COOPER et al.			
	All	5,281,581	1/1994	COOPER et al.			
	AJ1	5,298,605	3/1994	WESTERMARK et al.			
	AK1	5,321,008	6/1994	BEAUMONT et al.			
	AL1	5,367,052	11/1994	COOPER et al.			
	AM1	5,405,831	4/1995	MACINTYRE et al.			
	AN1	5,424,221	6/1995	WESTERMARK et al.			
	A01	5,424,394	6/1995	LEHMAN DE GAETA et al.			
	APl	5,508,260	4/1996	BEAUMONT et al.			
	AQl	5,527,771	6/1996	BEAUMONT et al.			
	ARI	5,641,744	6/1997	COOPER et al.			
	ASI	5,656,590	8/1997	RINK et al.			
	ATI	5,686,411	11/1997	GAETA et al.			
	AU1	5,998,367	12/1999	GAETY et al.			

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLAT	ION
	AFI	0 309 100	3/1989	Europe			X	Yes No
	AGI	0 408 294	7/1990	Europe			Х	Yes No

EXAMINER

^{*} Copies of the listed references were previously cited by or submitted to, the Office in a prior application. Pursuant to 37 C.F.R. §1.97(d) and MPEP §609, the indicated reference may have been previously cited by or submitted to, the Office in a prior application, where the prior application is identified by its U.S. Application Number in this Information Disclosure Statement.

FORM PTO-1449 INFORMATION DISCLOSURE STATEMENT					ATTY. DOCKET NO.	APPLICATION	APPLICATION NO.	
					18528.641	10/649,138	10/649,138	
					APPLICANTS	<u> </u>	· · · · · · · · · · · · · · · · · · ·	
				<u>r</u>	Laura S.L. GAETA et al.			
					FILING DATE	GROUP		
					August 26, 2003	1646		
		<u>, -</u>		FOREIC	ON PATENT DOCUMENTS			
	AA2	WO 89/06135	7/1989	PCT			Yes No	
	AB2	WO 90/06936	61990	PCT			Yes No	
	AC2	WO 92/11862	7/1992	PCT			Yes No	
	AD2	WO 92/11863	7/1992	PCT			Yes No	
	AE2	WO 92/15317	9/1992	PCT			Yes No	
	AF2	WO 93/10146	5/1993	PCT			Yes No	
	I	I	ОТНЕГ	R (Including A	Author, Title, Date, Pertinent Pages	, etc.)	1	
•	AG2	Bell, "Molecular Defects in Diabetes-Mellitus", <u>Diabetes</u> , 40:413-422 (1991).						
	АН2	Betsholtz et al., "Islet Amyloid Polypeptide (IAPP): cDNA Cloning and Identification of an Amyloidogenic Region Associated with the Species-Specific Occurrence of Age-Related Diabetes Mellitus", Experimental Cell Research, 183:484-493 (1989).						
	AI2	Betsholtz et al., "Sequence divergence in a specific region of islet amyloid polypeptide (IAPP) explains differences in islet amyloid formation between species", FEBS Letters, 251:261-264 (1989).						
	AJ2	Clark et al., "Islet Amyloid Formed From Diabetes-Associated Peptide May be Pathogenic in Type-2 Diabetes", The Lancet, 2(8553):231-234 (1987).						
	AK2	Cooper et al., "Amylin and the amylin gene: structure, function, and relationship to islet amyloid and to diabetes mellitus", Biochem. Biophys. Acta., 1014:247-258 (1989).						
	AL2	Cooper et al., "The Amylin Superfamily: A Novel Grouping of Biologically Active Polypeptides Related to the Insulin A-Chain", Prog. Growth Factor Research, 1:99-105 (1989).						
	AM2	Cooper et al., "Purification and characterization of a peptide from amyloid-rich pancreases of type 2 diabetic patients", Proc. Natl. Acad. Sci., 84:8628-8632 (1987).						
	AN2	Cooper et al., "Amylin Found In Amyloid Deposits In Human Type 2 Diabetes Mellitus May Be A Hormone That Regulates Glycogen Metabolism In Skeletal Muscle", Proc. Natl. Acad. Sci., 85:7763-7766 (1988).						
EXAMINER						DATE CONSID	ERED	

^{*} Copies of the listed references were previously cited by or submitted to, the Office in a prior application. Pursuant to 37 C.F.R. §1.97(d) and MPEP §609, the indicated reference may have been previously cited by or submitted to, the Office in a prior application, where the prior application is identified by its U.S. Application Number in this Information Disclosure Statement.

		ATTY. DOCKET NO.	APPLICATION NO.			
		18528.641	10/649,138			
	FORM PTO-1449	APPLICANTS				
	ON DISCLOSURE STATEMENT	Laura S.L. GAETA et al.				
		FILING DATE	GROUP			
		August 26, 2003	1646			
	OTHER (Including A	Author, Title, Date, Pertinent Pages, etc.)				
AA3	Cooper et al., "Amylin and Non-Insu Zimmet, P. & Chisholm, D. (Elsevier		dellitus", <u>Diabetes 1988</u> , ed. Larkins, R.,			
AB3	Dayoff et al., "A Model of evolutionary Change in Proteins", Atlas of Protein Sequences & Structure, Vol. 5, pp 89-99 (1972).					
AC3	Deems et al., "Amylin of CGRP (8-3 Accumulation", Biochem. Biophys. F		mylin-induced Inhibition of ¹⁴ C-Glycogen 16-120 (1991).			
AD3	Doherty, "Endogenous Vasoactive Pe	nal Chemistry, 26:83-92 (1991).				
AE3	Fujii et al., "Synthesis of Second Human Calcitonin Gene-Related Peptide (β-hCGRP) by Application of a New Disulfide-Bonding Reaction with Thallium(III) Trifuoroacetate", Chem. Pharm. Bull., 35(12):4769-4776 (1987).					
AF3	Fujii et al., "Syntheses of Cystine-Peptides by Oxidation of S-Protected Cysteine-Peptides with Thallium(III) Trifuoroacetate", Chem. Pharm. Bull., 35(6):2339-2347 (1987).					
AG3	Glenner et al., "Amyloid Fibrils Formed from a Segment of the Pancreatic Islet Amyloid Protein", <u>Biochem.</u> <u>Biophys. Res. Commun.</u> , 155(2):608-612 (1988).					
АН3	Goodman and Gilman's "The Pharmacological Basis of Therapeutics", Chapter 38 Pergamon Press, Eighth Edi (1990).					
A13	Gustavsson <i>et al.</i> , "Normal Transthyretin and Synthetic Transthyretin-Fragments form Amyloid-Like Fibrils in Vitro", <u>Biochem. Biophys. Res. Commun.</u> , 175(3):1159-1164 (1991).					
AJ3	Hilbich et al., "Aggregation and Secondary Structure of Synthetic Amyloid .beta.A4 Peptides of Alzheimer's Disease", J. Mol. Biol., 218:149-163 (1991).					
AK3	Hiskey et al., "Sulfhydryl Group Protection in Peptide Synthesis", The Peptides, Vol. 3, Chapter 3, pp 137-167 (1981).					
AL3	Hubbard <i>et al.</i> , "Solution structures of calcitonin-gene-related-peptide analogues of calcitonin-gene-related-peptide and amylin", <u>Biochem. J.</u> , 275:785-788 (1991).					
EXAMINER			DATE CONSIDERED			

^{*} Copies of the listed references were previously cited by or submitted to, the Office in a prior application. Pursuant to 37 C.F.R. §1.97(d) and MPEP §609, the indicated reference may have been previously cited by or submitted to, the Office in a prior application, where the prior application is identified by its U.S. Application Number in this Information Disclosure Statement.

		ATTY. DOCKET NO.	APPLICATION NO.			
		18528.641	10/649,138			
	FORM PTO-1449	APPLICANTS				
INFORMATIO	ON DISCLOSURE STATEMENT	Laura S.L. GAETA et al.				
		FILING DATE	GROUP			
		August 26, 2003	1646			
	OTHER (Including A	Author, Title, Date, Pertinent Pages, etc.)				
AA4		eptide: Mechanisms of Amyloidogenes ory Investigation, 66(5):522-535 (1992				
AB4	Johnson et al., "Factors Affecting Diabetogenesis and Amyloidogenesis are Provided by Studies of IAPP in the Dog and Cat", In Natvig, J.B. et al., Editors, Amyloid and Amyloidogenesis, 1990. Norwall, Mass, Kluwer Academic Publishers, pp. 445-448 (1991).					
AC4	Johnson <i>et al.</i> , "Islet Amyoid, Islet-Amyloid Polypeptide, and Diabetes Mellitus Medicine, 321(8):513-518 (1989).					
AD4	AD4 Johnson et al., "Newly Identified Pancreatic Protein Islet Amyloid Polypeptide", <u>Diabetes</u> , 40:310-314 (1991).					
AE4	Johnson <i>et al.</i> , "Amyloid in the Pancreatic Islets of the Cougar (Felis Concolor) is derived from Islet Amyloid Polypeptide (IAPP)", Comp. Biochem. Physiol., 98B(1):115-119 (1991).					
- AF4	Jordan <i>et al.</i> , "Canine IAPP cDNA Sequence Provides Important Clues Regarding Diabetogenesis and Amyloidogenesis in Type 2 Diabetes", <u>Biochemical and Biophysical Research Communications</u> , 169(2):502-508 (1990).					
AG4	Leffert et al., "Rat amylin: Cloning and tissue-specific expression in pancreatic islets", Proc. Natl. Acad. Sci. (PNAS), 86:3127-3130 (1989).					
AH4	Leighton <i>et al.</i> , "Pancreatic amylin and calcitonin gene-related peptide cause resistance to insulin in skeletal in vitro", <u>Nature</u> , 335(6191):632-635 (1988).					
AI4	Leighton et al., "Amylin inhibits glucose utilization in the soleus muscle of the rat in vitro", <u>Diabetologia</u> , 31:: [Abstract 288] (1988).					
AJ4	Nishi et al., "Conservation of the sequence of islet amyloid polypeptide in five mammals is consistent with its putative role as an islet hormone", <u>Proc. Natl. Acad. Sci.</u> , 86:5738-5742 (1989).					
AK4	O'Brien <i>et al.</i> , "Islet Amyloid Polypeptide and Insulin Secretion from Isolated Perfused Pancreas of Fed, Fasted, Glucose-Treated, and Dexamethasone-Treated Rats", <u>Diabetes</u> , 40:1701-1706 (1991).					
AL4	Ohagi et al., "Sequences of islet amyloid polypeptide precursors of an old world monkey, the pig-tailed macaque (Macaca nemestrina), and the dog (Canis familiaris)", Diabetologia, 34:555-558 (1991).					
EXAMINER			DATE CONSIDERED			

^{*} Copies of the listed references were previously cited by or submitted to, the Office in a prior application. Pursuant to 37 C.F.R. §1.97(d) and MPEP §609, the indicated reference may have been previously cited by or submitted to, the Office in a prior application, where the prior application is identified by its U.S. Application Number in this Information Disclosure Statement.

			ATTY. DOCKET NO.	APPLICATION NO.			
			18528.641	10/649,138			
	F	ORM PTO-1449	APPLICANTS				
INFO		N DISCLOSURE STATEMENT	Laura S.L. GAETA et al.				
		j	FILING DATE	GROUP			
			August 26, 2003	1646			
		OTHER (Including A	Author, Title, Date, Pertinent Pages, etc.)	L			
			lated Peptide: Occurrence in Pancreatic Mouse", <u>Endocrinology</u> , 119(2):865-86				
	AB5	Porte et al., "β-Cells in Type II Diabetes Mellitus", <u>Diabetes</u> , 40:166-180 (1991).					
	AC5	Poyner, "Pharmacology of receptors for calcitonin gene-related peptide and amylin", <u>TiPS</u> , 16(12):424-428 (1995).					
	AD5	Roberts et al., "Molecular and functional characterization of amylin, a peptide associated with type 2 diabetes mellitus", Proc. Natl. Acad. Sci. (PNAS), 86:9662-9666 (1989).					
	AE5	Saldanha <i>et al.</i> , "Molecular model-building of amylin and α-calcitonin gene-related polypeptide hormones using a combination of knowledge sources", <u>Protein Engineering</u> , 4(5):539-544 (1991).					
	AF5	Stridsberg et al., "Islet Amyloid Polypeptide (IAPP)", Acta Oncologica, 30(4):451-456 (1991).					
	AG5	Westermark et al., "A Novel Peptide in the Calcitonin Gene Related Peptide Family as an Amyloid Fibril Protein in the Endocrine Pancreas", <u>Biochemical and Biophysical Research Communications</u> , 140(3):827-831 (1986).					
	АН5	Westermark et al., "Islet Amyloid in Type 2 Human Diabetes Mellitus and Adult Diabetic Cats Contains a Novel Putative Polypeptide Hormone", Am. J. Pathology., 127(3):414-417 (1987).					
	AI5	Westermark <i>et al.</i> , "Islet Amyloid Polypeptide: Pinpointing Amino Acid Residues Linked to Amyloid Fibril Formation", <u>Proc. Natl. Acad. Sci.</u> , 87:5036-5040 (1990).					
	AJ5	Westermark et al., "Islet amyloid polypeptide (IAPP) and pro-IAPP immunoreactivity in human islets of Langerhans", Diabetes Research and Clinical Practice, 7:219-226 (1989).					
	AK5	Westermark, "Islet amyloid polypeptide in humans and cats", in <u>Frontiers in diabetes research. Lessons from animal diabetes III</u> , Shafrir, E., Eds., X.2:498-501, Smith-Gordon (1990).					
	AL5						
EXAMINER				DATE CONSIDERED			

^{*} Copies of the listed references were previously cited by or submitted to, the Office in a prior application. Pursuant to 37 C.F.R. §1.97(d) and MPEP §609, the indicated reference may have been previously cited by or submitted to, the Office in a prior application, where the prior application is identified by its U.S. Application Number in this Information Disclosure Statement.